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ABSTRACT

Hawaii's ethnic groups have certain stereotypes of each other. These promote interethnic conflicts, with certain groups being preferred over others. The relationships between eight major ethnic groups (black, Caucasian, Chinese, Filipino, Hawaiian, Japanese, Korean and Samoan) are explored in this study. The groups were studied and the results were reported in terms of dimensional structures of preference, perceived similarities, and "connotative meaning" as the basis for attitudes. (Author/PR)

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DIMENSIONALITY OF HAWAII'S ETHNIC GROUPS

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Introduction

Hawaii, with its multiethnic environment, has been the target area for many studies concerning ethnic relations. Most of the articles reviewed for this study agree that Hawaii's ethnic groups have certain stereotypes of each other (Vinacke, 1949) and that Hawaii, like any other place, is not devoid of inter-ethnic conflicts, with certain groups being preferred over others (Haas and Resurrection, 1976). It is the intention of this study to examine the relationships among Hawaii's ethnic groups using multidimensional scaling methods and to attempt to uncover the dimensional structures of attitudes toward eight major ethnic groups of Hawaii: Black, Caucasian, Chinese, Filipino, Hawaiian, Japanese, Korean and Samoan. Specifically, this paper will explore the dimensional structures of preference, perceived similarities, and 'connotative meaning' to describe the bases for these attitudes.

Method

Subjects. Subjects for this study were 45 University of Hawaii-Manoa students, born in Hawaii (n = 25) and elsewhere (n = 20), predominantly on the U.S. Mainland. The Hawaiian-born subjects all identified themselves as ethnically Oriental (18 Japanese, 6 Chinese, 1 Chinese/Hawaiian). Those born elsewhere were predominantly Caucasian (n = 16), but included four Chinese.

Instruments and Procedure. The instrument used a set of three scales: a preference scale, a similarity scale, and a semantic differential.

The preference scale was a randomized complete paired comparison of the eight ethnic groups with each other, yielding $K(K-1)/2 = 28$ comparisons. Subjects were instructed to select from each pair of ethnic groups the one they preferred over the other member of the pair.

The similarity scale was a randomized complete paired comparison of the eight ethnic groups with each other, yielding $K(K-1)/2 = 28$ pairs, with a five-point scale attached to each pair. Subjects were instructed to judge the similarity between the members of each of the ethnic group pairs on the scale, with 1 = "very little similarity" and 5 = "very similar."

The semantic differential was constructed using the format described by Osgood et al. in The Measurement of Meaning (1957). This scale consisted of 20 seven-point scales separating pairs of bipolar adjectives. Subjects used eight identical sets of these 20 scales to differentiate the eight randomized ethnic groups (as 'concepts') against the bipolar adjectives, which were chosen as potential descriptors of the various ethnic groups.

On both the preference and similarity scales, the subjects were not given characteristics on which those comparisons were to be made; this was information to be discovered rather than imposed.

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Subjects were approached and tested individually since a pilot trial indicated some reluctance associated with participating in the study requiring statements of preference for different ethnic groups. Subjects were given standard instructions for filling out the questionnaire.

Results and Discussion

Preference Scale

Results. The data from the preference scale was analyzed using the computer program RANKO (Dunn-Rankin) to determine the scale score of each ethnic group (see Table 1). Japanese had the highest scale score; Samoans had the lowest. A matrix of rank differences shows that among 28 paired comparisons, there were 12 significantly different pairs ($p = .05$). See Table 2.

The data were then analyzed using the program TRICIR (Knezek) to determine the number of circular triads in the data (Table 3). The number of circular triads was highest in the placement of Filipinos. The mean number of circular triads among the subjects was .6861; the average consistency was .9657.

The preference data were then analyzed by the multidimensional scaling program MDPREF (Chang and Carroll), and a two-dimensional solution accounting for approximately 76% of the variance was found. The plot of the stimuli and subjects in Dimension 1 and Dimension 2 is reproduced in Figure 1.

Discussion. The analyses show that the subjects were very systematic and certain in making their preference judgments, and that certain groups are preferred over others. Japanese are most preferred and Samoans least preferred.

A circular triad occurs whenever a subject makes a circular judgment, e.g., given 3 objects, X, Y, and Z, these objects can be paired in 3 possible combinations: X - Y, X - Z, and Y - Z. If the subject chooses X over Y, Y over Z, and Z over X, his choices are circular. Circular triads apparently occur because (1) the objects are difficult to discriminate or (2) because the subject changes the underlying dimensions of his choices from one pair to the next (Dunn-Rankin et al., 1978).

The high number of circular triads involving Filipinos probably indicates that less was known about them by the subjects than about some other groups, leading to confusion about where to place them. Consequently, their relative scale score is probably not as accurate as those of the other ethnic groups. The low number of circular triads involving Japanese indicates that most subjects had definite knowledge about Japanese.

MDPREF is a multidimensional scaling program that performs a linear factor analysis on the stimuli and then locates a preference vector for each subject depending upon how the subjects rank the stimuli. It plots the subject vector within the object space. One advantage of using MDPREF is that the individual preference structure can be isolated within the 'group space'.

The configurations of the preference data yielded by MDPREF show no clear evidence of preference along racial lines but, rather, the two dimensions appear to be a social status dimension and a mainland values dimension. The sharp contrast between the dimensional preference of Hawaii-born subjects and those born

elsewhere indicates a difference in their choices and also probably indicates that in general, subjects tend to prefer groups that they are most familiar with.

Similarity Scale

Results. The multidimensional scaling program INDSCAL (Chang and Carroll) was used to analyze the similarity data, and a three-dimensional solution accounting for approximately 62% of the variance was obtained. The group stimulus space for Dimension 1 and Dimension 2 is reproduced in Figure 2, and the group stimulus space for Dimension 2 and Dimension 3 in Figure 3. There were no differences in dimensional preference between subjects born in Hawaii and those born elsewhere.

Discussion. INDSCAL is a three-way multidimensional scaling program that not only determines a configuration of points called the "group stimulus space," but also determines a set of points in another space called the "weight or subject space." A special feature of INDSCAL is that, contrary to most other multidimensional methods, its coordinate axes are uniquely determined. Thus, direct interpretation of dimensions is possible without axes rotation.

The dimensions yielded by INDSCAL seem very clear. Dimension 1 appears to be a racial dimension of Oriental versus non-Oriental. Dimension 2 appears to be a socio-economic dimension. Dimension 3 appears to be a 'belongingness' dimension of "local" versus "non-local." The placement of the Japanese on the boundary between local and non-local suggests that the Japanese population, in general, contains both "local" and "non-local" attributes.

Semantic Differential

Results. Studies by Osgood (1957) and others have shown that a large part of the connotative aspect of meaning can be described in terms of three orthogonal factors of evaluation, potency and activity. The data from the semantic differential were first analyzed by the principle components method. Cattell's scree test indicated that three factors could be extracted, accounting for 58% of the variance. The factor scores of these three factors were used to compute the linear distances between the points in the 'semantic space' using the generalized distance formula $D = \sqrt{\sum_{ij}}$. These distances were used in INDSCAL to locate the ethnic groups within the three factors of the semantic space.

Results show that the ethnic groups were not well differentiated on the evaluative dimension. On the potency dimension there were two distinct clusters of ethnic groups.

Discussion. The INDSCAL configuration of the ethnic groups on the evaluative dimension shows that the subjects rated all the ethnic groups almost equally favorably. This may reflect the subjects' egalitarian view of humanity.

The two clusters of ethnic groups along the potency dimension resemble the socio-economic dimension of the similarity data, Indicating that the subjects may have used socio-economic status as a measure of potency.

Summary

Vinacke, in his 1949 study on stereotyping, observed that "very often, the liberal person, recognizing prejudice and its evils, becomes guilty of the fallacy of assuming that to be unprejudiced means attributing only good qualities to the group against which prejudice is expressed, or attributing identical characteristic to all groups."

Thorndike in his 1977 study found that correlations between ethnic groups and personal ideals were predominately positive while correlations between people "in general" and personal ideals were often negative. This discrepancy seems to suggest a sensitivity and defense to responding to questions concerning ethnic groups.

These two studies seem to imply that the semantic differential would not be as effective an instrument as the preference or similarity scales in measuring attitudes toward the multiethnic population of Hawaii. In this study, however, the semantic differential data is as interpretable as the forced-choice scales.

The INDSCAL analysis of the distances between groups on the semantic differential found the configuration of the potency dimension to be very similar to that of the socio-economic dimension in the similarity scale and very similar to the social status dimension in the preference scale. The similar dimensional structures yielded by these three scales would suggest that preference, perceived similarity and 'connotative meaning' are closely related, and that preference scales, similarity scales and the semantic differential are all appropriate in measuring the continuum of attitude.

References

Dunn-Rankin, P., Knezek, G. and Abalos, J. Circular Triads Revisited. Paper presented at the Hawaii Psychological Association Conference, Honolulu, HI. May 1978.

Gorsuch, R. Factor Analysis. Texas Christian University: W. B. Saunders Co., 1974.

Haas, M. and Resurrection, P. Politics and Prejudice in Contemporary Hawaii. Coventry Press of Honolulu, 1976.

Knezek, G. A. Circular triad distributions with applications to complete paired comparison data. Doctoral Dissertation, Dec. 1978.

Kruskal, J. B. and Wish, M. Multidimensional Scaling. Beverly Hills and London: Sage Publications.

Osgood, Suci and Tennenbaum. The Measurement of Meaning. Urbana, Chicago and London: University of Illinois Press, 1957.

Snider and Osgood. Semantic Differential Technique. Chicago: Aldine Publishing Co., 1969.

Thorndike, R. L. Content and evaluation of ethnic stereotypes. Journal of Psychology, 1977 (May), vol. 96(1), 131-140.

Vinacke, W. E. Stereotyping among national-racial groups in Hawaii: A study in ethnocentrism. The Journal of Social Psychology, 1949, 30, 265-291.

Table 1
Linear Scale Scores of the Eight Ethnic Groups
Based on Preference Data

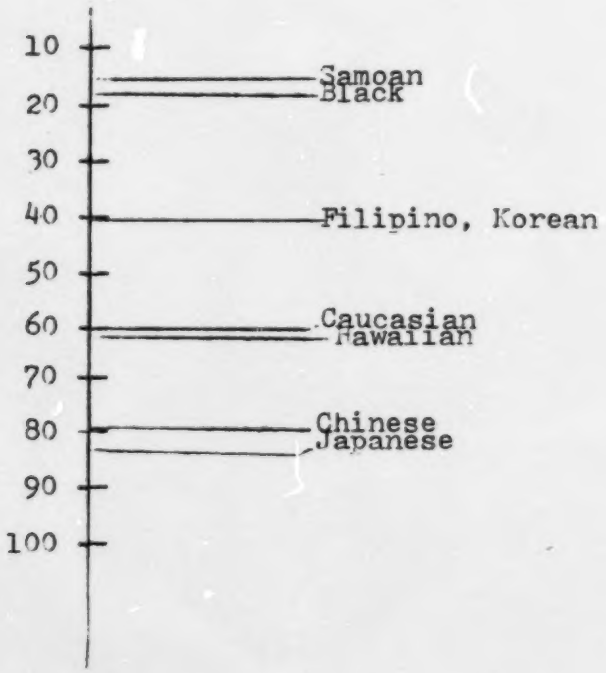

Table 2
Matrix of Rank Differences

	Jap	Chin	Hawn	Cauc	Filip	Kor	Blk	Sam
Japanese								
Chinese	11							
Hawaiian	53	42						
Caucasian	56	45	3					
Filipino	103	92	50	47				
Korean	104	93	51	48	1			
Black	161	150	108	105	58	57		
Samoan	164	153	111	108	61	60	3	

$p = .05$, Rank Difference needed for significance = 62

Table 3
Circular Triads in Preference Data

Ethnic Group	Number of Circular Triads
Blacks	7
Caucasians	12
Chinese	11
Filipinos	15
Hawaiians	10
Japanese	2
Koreans	10
Samoans	5

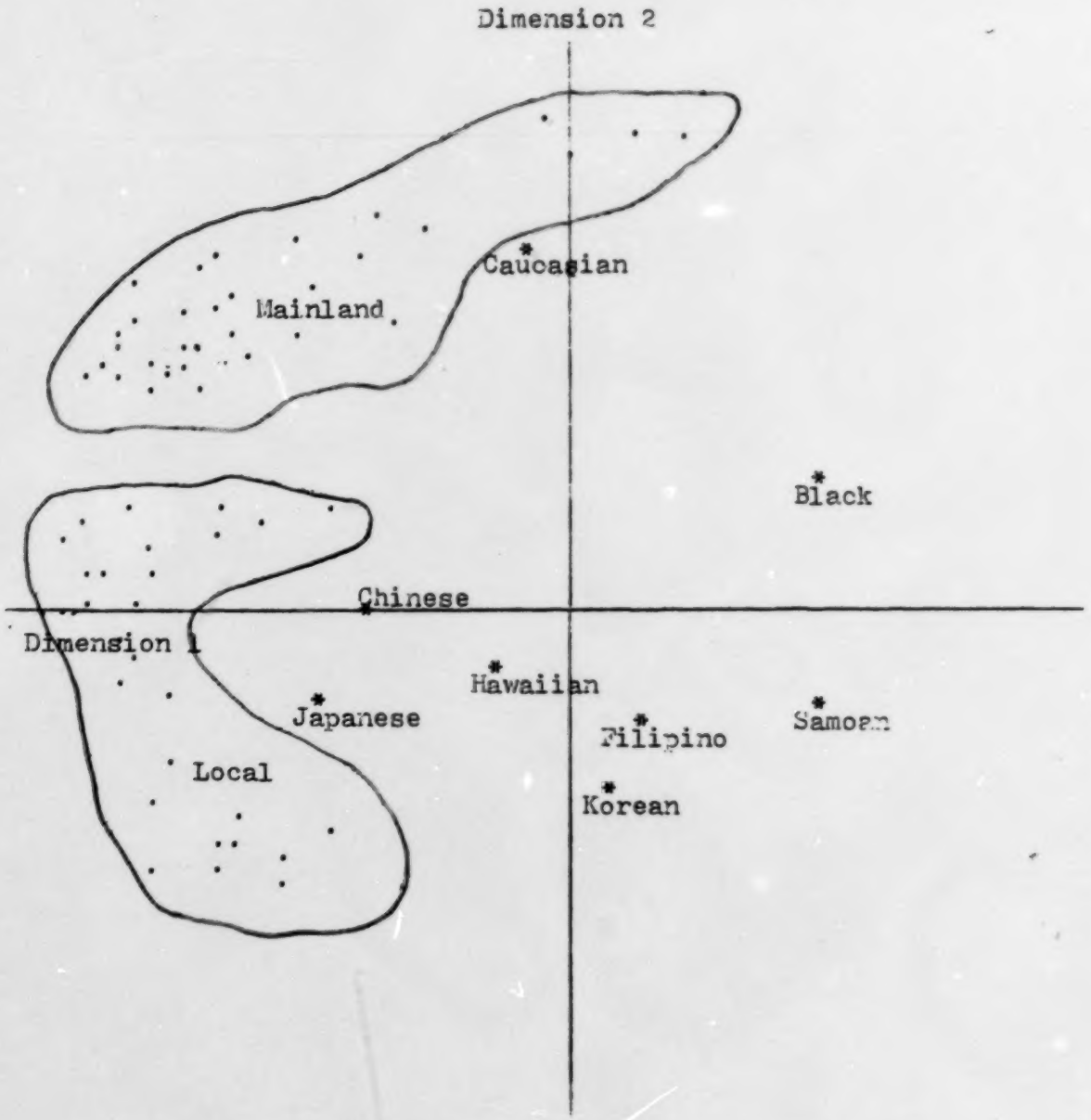

Figure 1. MDPREF plot of stimuli, and subjects' dimensional preference of Dimension 1 and Dimension 2 for preference data.

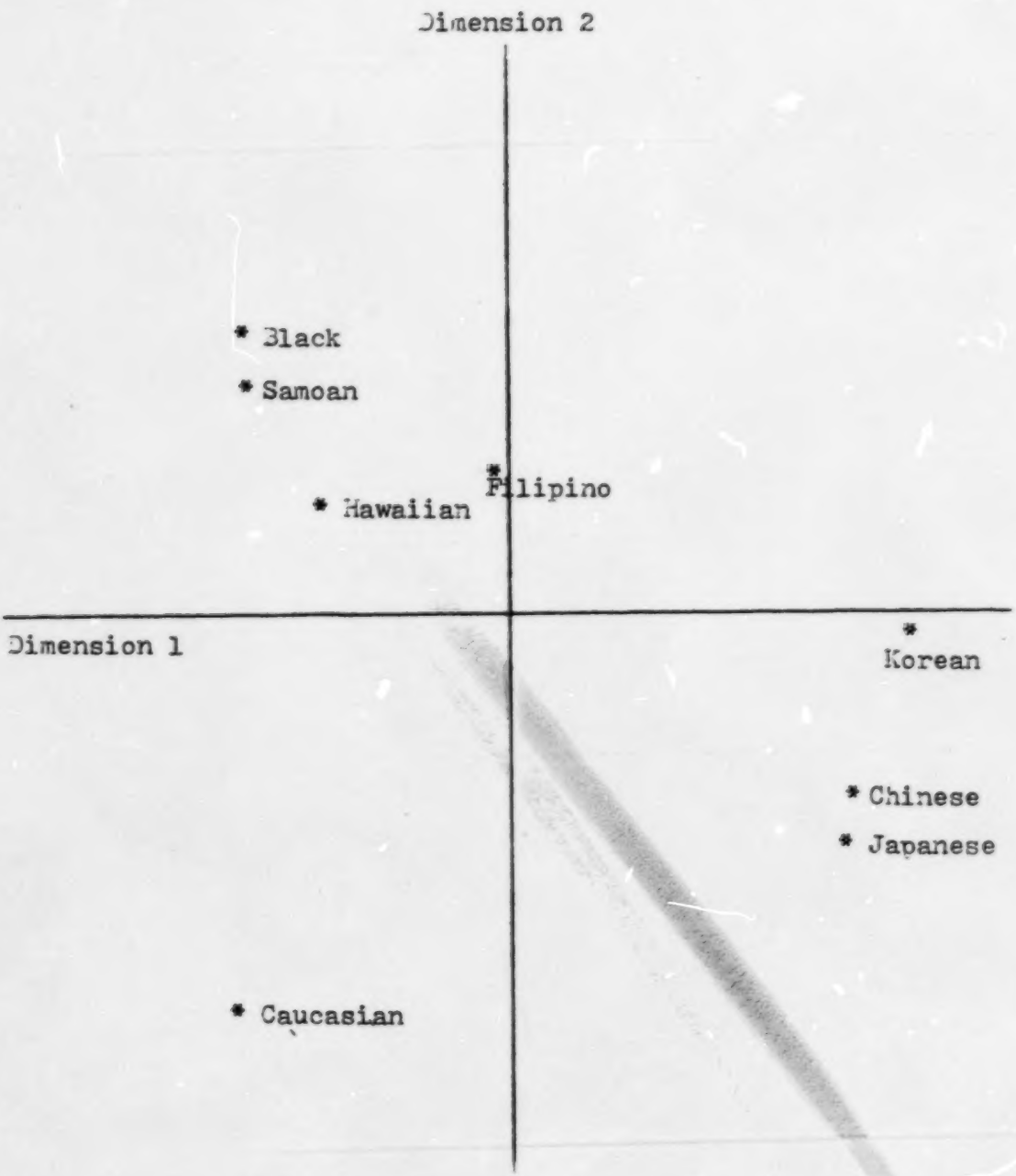

Figure 2. INDSCAL plot of Dimension 1 and Dimension 2 for the Similarity Scale.

Figure 3. INDSCAL plot of Dimension 2 and Dimension 3 for the Similarity Scale.

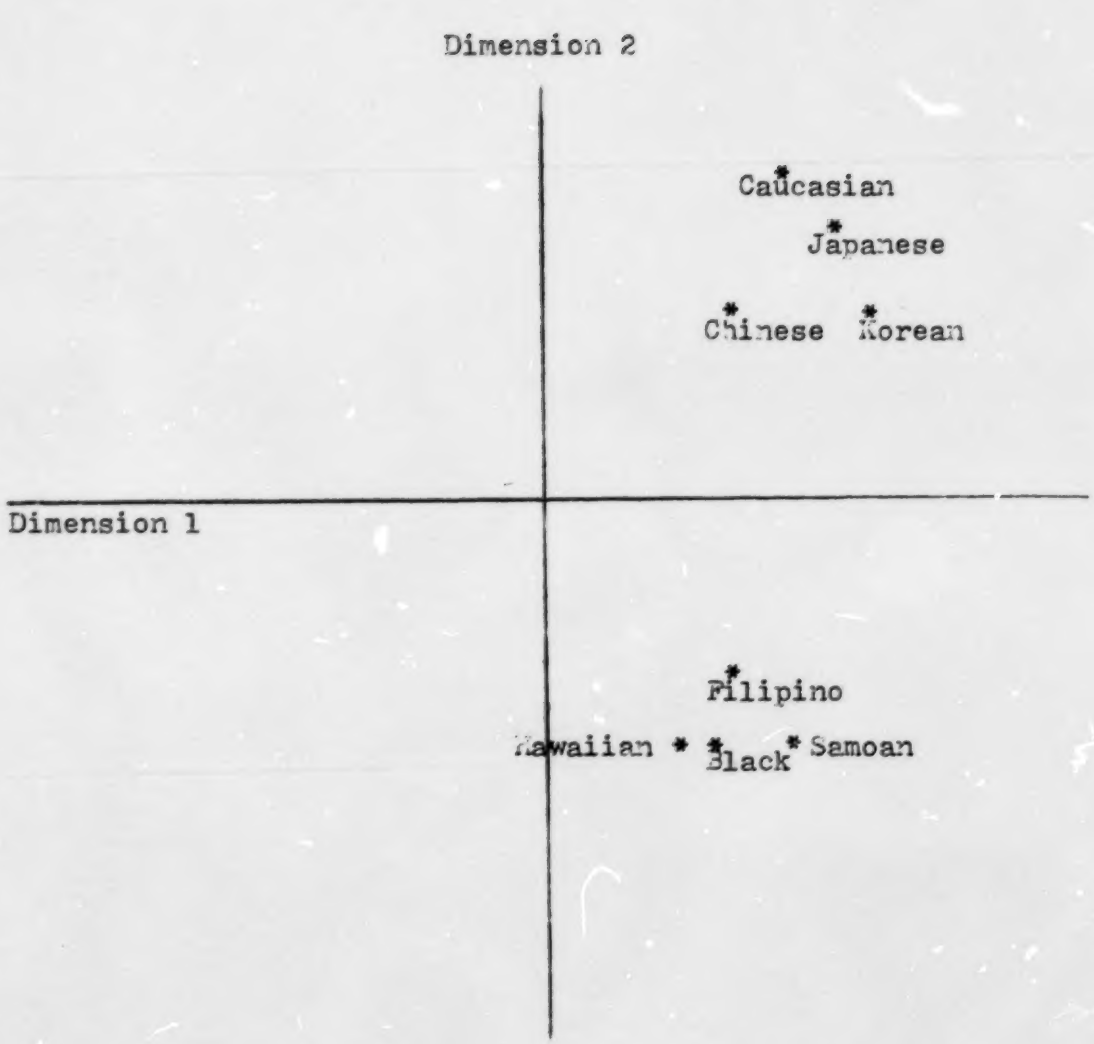

Figure 4. INDSCAL configuration of semantic differential data.